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Via Federal Express and Electronic Mail

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Environmental Protection Agency, Region 6
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Environmental Protection Agency, Region 6
1445 Ross, Suite 1200
Dallas, Texas 75202

RE: Request for Aquifer Exemption in the Goliad Formation, Goliad County

Dear Mr. Flores and Mr. Dellinger:

We were recently provided a copy of the August 29, 2011 letter ("letter") submitted by the Texas Commission on Environmental Quality ("TCEQ") to the Environmental Protection Agency, Region 6 ("EPA-Region 6") regarding TCEQ's request for an aquifer exemption in Goliad County. TCEQ appears to take the position that it is unnecessary to comply with the request for modeling made by EPA-Region 6. Essentially, TCEQ has asked the citizens of Goliad County and EPA-Region 6 to ignore the danger posed by migration of harmful constituents introduced into the groundwater by the mining process. TCEQ supports its position with an extremely narrow interpretation of the applicable regulations and guidance documents for aquifer exemptions. Goliad County strongly disagrees with the TCEQ's position and plans to respond in greater detail in a future letter to EPA-Region 6. However, at this time, the purpose of this letter is to submit an initial response and provide information that demonstrates that the proposed aquifer exemption is in fact hydraulically connected with nearby domestic water wells.

The request for modeling by EPA-Region 6 is consistent with EPA Guidance No. 34. TCEQ incorrectly argues they it is not required to provide modeling pursuant to Guidance No. 34 because the document does not explicitly list modeling among the enumerated items of the Evaluation Criteria. The document addresses this issue directly. Under the Evaluation Criteria Section, just after the list of enumerated items that must be provided by an applicant, Guidance

No. 34 states, **“In addition to the above descriptive information concerning the aquifer, all exemption requests must demonstrate that the aquifer ‘... does not currently serve as a source of drinking water.’ (40 CFR § 146.04(a)).”** In other words, after the enumerated list that TCEQ relies on, the document plainly contemplates that more is required. The document spells out what more is required: a demonstration that the aquifer does not currently serve as a source of drinking water. It seems clear that this language provides EPA-Region 6 with the authority to request any information necessary for an applicant to make this demonstration.

TCEQ further argues that to make this demonstration, it is only required to “... survey the proposed exempted area to identify any water supply wells which **tap** the proposed exempted aquifer.” However, the following sentence of Guidance No. 34 clarifies that **“the area to be surveyed should cover the exempted zone and a buffer zone outside the exempted area. The buffer zone should extend a minimum of 1/4 mile from the boundary of the exempted area.”** When read in its entirety, the guidance document indicates that the EPA clearly contemplated evaluating the risk associated with migration of groundwater outside a proposed exemption boundary. Accordingly, EPA-Region 6 is well within its established policies and authority to request modeling to ensure protection for these adjacent well users.

Notably, TCEQ’s letter does not dispute that the water within the proposed aquifer exemption is hydraulically connected to the adjacent domestic water wells. Similarly, UEC’s hydrogeology consultant, Dr. Phillip Bennett, testified at his deposition that the B sand at the production zone is continuous beyond the proposed aquifer exemption boundary. After reviewing cross-sections of the proposed Goliad mining site,¹ Dr. Bennett testified that “by looking at the logs, [the sands inside and outside the exemption area] would appear to be connected, and I would expect that they would be a continuous sand.”² Dr. Bennett further opined that the B sand is continuous to the southeast at least up until the Southeast Fault, which is located some distance beyond the aquifer exemption boundary and nearby domestic water wells.³ Thus, UEC’s own expert has opined about the hydrologic connection. It is Goliad County’s position that the requested modeling will simply confirm existence of the already identified hydrologic connection, and that the hydrologic connection is currently grounds for denying the aquifer exemption request. However, Goliad County certainly supports the EPA’s decision to ascertain more information as it deems necessary.

Given a hydraulic connection, regional and local flow directions are crucial for determining whether nearby wells are in jeopardy of contamination as a result of the proposed mining. Regionally, groundwater flow in the area of the proposed mining site is generally to the southeast towards the Gulf of Mexico. Local groundwater flow is also generally to the east and southeast, and the two piezometric maps⁴ provided for Sand B in the Production Area Authorization Application indicate that some groundwater within PA-1 flows to the west.⁵ Accordingly, because the adjacent domestic and agricultural water wells lie in these directions, a large portion, if not all of the approximate fifty (50) wells identified on the area of review map are at risk.

¹ See cross-sections, Figures 8.1, 8.2 and 8.3 of the Thomas A. Carothers report submitted to EPA-Region 6 as an enclosure to its August 29, 2011 letter.

² See Exhibit 1, Dr. Bennett’s deposition transcript at page 148, line 24 – page 149, line 9.

³ See Exhibit 2, Map depicting the location of the Southeastern Fault.

⁴ See Exhibit 3, Figure 5-3 (August 25, 2008) from PA-1; Figure 5-3 (February 17, 2009) from PA-1.

⁵ See Exhibit 4, Hearing Transcript at page 686, line11 – page 687, line10.


Until the hydraulic connection and local groundwater flow is modeled, and or until the TCEQ can provide information to counter the existing hydrogeologic makeup of the proposed mining site, Goliad County cannot understand how the proposed exemption satisfies 40 C.F.R. § 146.04(a) as an aquifer that is not currently being used as a source of drinking water. Nor can Goliad County be sure any of the nearby wells are safe from mining activities.

Considering the strong evidence of an existing hydraulic connection, it is not surprising that the TCEQ took great efforts to argue as many reasons as possible that modeling is unnecessary. The TCEQ argued that the requested modeling is "not an evaluation of current conditions but an evaluation of future conditions." Again, the TCEQ's suggestion that adjacent water wells are not relevant to the aquifer exemption inquiry is inconsistent with Guidance No. 34 and basic hydrogeologic principles. Furthermore, even assuming arguendo that the TCEQ's interpretation were correct, the modeling is still vital for the TCEQ to satisfy 40 C.F.R. § 146.4(b), which requires a demonstration that the water within the proposed exemption will not serve as a source of drinking water **even in the future**.

For the foregoing reasons, Goliad County and its citizens respectfully request that EPA-Region 6 maintain its initial request. If EPA-Region 6 has any questions or would like any additional documentation, please contact me at (713) 524-1012 or by email at AFriedman@Blackbucarter.com.

Sincerely,

BLACKBURN CARTER, P.C.

by 
Adam M. Friedman

Enclosures

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